1955
Popularized by Elvis Presley and James Dean, blue jeans became the "uniform" for the next generation of young people.

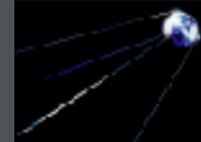**1956**
Actress Brigitte Bardot in a petticoat, the item of feminine clothing par excellence in the 1950's.

1956
The rebellion of the Hungarian people against the Communist regime was brutally crushed by Soviet troops.

1957
Soviet scientists managed to launch Sputnik, the first artificial satellite to orbit the earth in space.

1958
Joe Engelberger founded the world's first robotics company in Chicago, producing Puma and Unimate robots for the entire world.

_dijkstra's initial insights

In 1957 the first FORTRAN compiler is completed, for the IBM 704, by an IBM team led by John W. Backus.

In 1960 in Paris the ACM Committee on Programming Languages adopts the new draft report of the Algorithmic Language ALGOL. This report, written by Peter Naur, based upon a 1958 preliminary report and the recommendations of the preparatory meetings, is ground-breaking in its encouragement of well-structured programs.

To understand the development of computing science one has to start with the development of the first computers. It was during the forties when computer pioneers built the first working examples of machines that, from today's point of view, would be called computers. It was around 1950 when a computer was first offered on the open market. It soon became clear that computers could be applied in different areas and to different problems.

The growing acceptance of computers created unexpected problems. There were neither standards nor programming languages, and each problem had to be formulated in the machine's own language. As the speed and reliability of the computers increased, the chore of formulating correct and complete tasks for those computers became daunting. As Peter Naur comments in his book "Computing: A Human Activity":

"a steadily increasing part of the costs of running the computers was taken up by vain attempts at running incorrect programs. Thus from the late 1950's programming became the key issue in the work with the computers."

After completing his Master's Degree, **Dijkstra** began to work full-time at the Mathematical Centre in Amsterdam and was involved in the design of a new computer. Whereas his co-workers, Bram J. Loopstra and Carel S. Scholten were responsible for the hardware, Dijkstra was responsible for the basic software and wrote a PhD dissertation on the real-time interrupt handler of the X1 computer. One important aspect of this cooperation was to write a programmer's manual for a non existant machine including its complete functional description. This programming for a non existant machine turned out to be a valuable training for him.

During this time Dijkstra designed his first non-trivial algorithm, the algorithm for finding the **shortest path**, designed to demonstrate the power of the ARMAC (a computer built at the Mathematical Centre in Amsterdam)

at its official inauguration in 1956. Interestingly he published this algorithm three years later in a 3-page article. It took some time before this achievement gained due recognition, and the explanation for this is given by Dijkstra himself:

"The mathematical culture of the day was very much identified with the continuum and infinity. Could a finite discrete problem be of any interest? ...Any finite set has a minimum – next problem, please. It was not considered mathematically respectable."

The shortest path algorithm, also known as Dijkstra's Algorithm, has since been used in many applications (road building, route planning and so on) in which one must find the best (shortest) way to travel to a destination.

Towards the end of the fifties Dijkstra became involved in the project of designing the programming language ALGOL. He discovered how to implement subroutines that could call themselves with the help of a stack; introduced the idea of a **display**, which was an array with pointers to activation records for accessing non-local variables; and in 1959 he started to implement the first **compiler** for ALGOL 60 (together with J.A. Zonneveld). It was finished in August 1960.